

# CUSTOMER **Circuit**

FALL 2019

WESTERN AREA POWER ADMINISTRATION



## Partnerships create connected communities

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# Customers weigh in on challenges, opportunities of fiber optic partnerships

**W**APA hosted the final customer meeting on its fiber optics partnership assessment Aug. 29 at its Lakewood, Colorado, Headquarters to bring stakeholders together to discuss issues related to fiber partnerships.

A total of 62 customers attended the meeting or joined the live webinar to learn more about WAPA's current fiber-sharing agreements and issues surrounding potential sharing opportunities. WAPA's role in the American Broadband Initiative, one of the drivers behind the assessment, was also part of the discussions.

The initiative directs WAPA and Southwestern Power Administration to complete a feasibility assessment by December on leasing dark fiber—power transmission system optical fiber not in service. Fiber cable on the transmission line is commonly referred to as optical ground wire, or OPGW.

## Reasons to assess

The goal of the presidential initiative is to improve high-speed internet access for rural parts of the country. WAPA's need for robust transmission system communications to deliver reliable, resilient and secure power intersects with that goal. Fiber is crucial for grid reliability and resilience. Without resilient communications, WAPA's ability to operate efficiently decreases dramatically.

WAPA has installed more than 5,000 miles of OPGW across its territory over the last 20 years, basing the buildout primarily on planned maintenance and replacements to

minimize cost. The network interconnects with other entities' fiber optic networks, and WAPA has sought partnerships with some of those entities to enhance grid resilience.

As the grid brings in more and more operational data every year, fiber supports WAPA's ever-increasing need for bandwidth. Months before the ABI, WAPA was considering a feasibility assessment to help communicate its priorities and needs and establish best practices for fiber partnerships going forward. The assessment also provides impetus to determine how WAPA can address partnership requests in a more efficient, standardized way.

## Inviting comment

Transparency is equally important to the prudent business practices that guide WAPA's operations. When WAPA launched the Fiber Optic Partnerships Assessment in April 2019, ample opportunity for customers to share their interests and concerns was built into the process.

The August event was the culmination of an extensive public outreach process that ran through the summer and included meetings across WAPA's territory. The August meeting format was similar to the regional meetings, except that it included a review of the insights and feedback gathered from the previous meetings. Participants were encouraged to give input on four key areas of focus shaped by past discussions. Those key areas include:

- Interest and opportunities for new partnerships.
- Customers' priorities and goals for fiber partnerships.
- Challenges and concerns with new partnerships.
- Gaps in feasibility assessment elements.

**Rocky Mountain Lead Telecommunications Engineer Kevin Hogg explains that the assessment will help develop best practices for forming partnerships to address WAPA's ever-increasing need for bandwidth.**



Customers were also able to submit comments electronically until Sept. 15. This dialogue will help WAPA address the varying and diverse needs of its entire customer base and protect customer investment.

## Discussion reveals issues

As the final meeting in a series, the event served primarily as a recap of discussions at the regional level. However, attendees who were already familiar with the issues still found the discussions valuable.

Mid-West Electric Consumers Association Executive Director Bill Drummond, who had attended three regional meetings, learned more about the different interests that would like to use WAPA's dark fiber. "I particularly appreciated [WAPA General Counsel] John Bremer's discussion of the legal issues, as I had been asking about that at the prior meetings," he said.

Some customers gained a new appreciation for the extent of WAPA's fiber network and existing partnership agreements. Ted Miller, assistant director of Operations for Redding Electric Utility, said, "WAPA creates a win-win partnership, which can be a very economical approach to encourage competition."

The northern California utility was among several customers serving rural and more remote areas that were exploring partnership opportunities to improve broadband coverage to their communities. Representatives from

Trinity Public Utility District in California and the City of Farmington, New Mexico, shared the view that better internet connectivity could improve economic opportunities in rural areas, and that a fiber-sharing agreement with WAPA might provide the pathway.

Concerns about costs—how future partnerships might affect rates, negatively or positively—ran parallel to interest in fiber-sharing agreements. Attendees wanted to know how costs for installation, maintenance and repairs would affect rates and whether partnerships might produce revenue. WAPA Electronics Engineer Kevin Hogg, a member of the fiber assessment team who spoke at the event, emphasized that WAPA maintains the "beneficiary pays" principle in its existing and future partnerships.

Security was another issue that presented pros and cons; although some attendees expressed concern about potential cybersecurity- and physical security-related issues associated with fiber partnerships, others noted that partnering could increase communication redundancy.

Above all, attendees wanted to know that WAPA's top priority would continue to be power delivery, and they left the meeting reassured. Administrator and CEO Mark A. Gabriel and other speakers repeatedly stated that WAPA was not looking to get into the telecommunications business. Claire Vigesaa, general manager of Upper Missouri Power Cooperative, attended the meeting to show support for WAPA's core mission. "We would like them to keep that focus," he said. "WAPA staff reaffirmed this as well."

## Next steps

Over the next few months, the WAPA fiber team will compile the outreach data from the meetings. Discussion summaries from all meetings can be found on The Source, Key Topics, Assessing WAPA's Fiber Optic Partnerships. The assessment will be finalized and submitted to the Department of Energy in December. Discussion on potential next steps will begin in Spring 2020.

WAPA thanks everyone who provided input during the public outreach phase of the Fiber Optics Partnership Feasibility Assessment. Customer participation has been indispensable in helping WAPA develop its own best practices and understanding the concerns and issues of its customers.

**Administrator and CEO Mark A. Gabriel opened the meeting with a discussion about the value of WAPA's fiber feasibility assessment and a recap of what had been learned from the regional customer meetings on fiber.**







## WAPA continues moving into energy imbalance markets

**T**he changing energy mix poses a significant challenge to the utility industry and to reliable power delivery. As a way to adapt to this reality, WAPA has been exploring energy imbalance markets and services for the past year, and recently made two announcements regarding energy imbalance management.

Sierra Nevada and the Balancing Area of Northern California made a joint announcement Sept. 4 that they intend to join the California Independent System Operator's Western Energy Imbalance Market beginning April 2021.

On Sept. 9, WAPA's Colorado River Storage Project Management Center, Rocky Mountain region and Upper Great Plains region, west system announced that they intend to participate in Southwest Power Pool's Western Energy Imbalance Service. SPP's WEIS will launch in February 2021.

WAPA's Desert Southwest region will study market options over the course of the next year. Administrator and CEO Mark A. Gabriel explained, "When it comes to markets and market services, one size does not fit all; each region is unique. There cannot, nor will there be, a single, WAPA-wide decision."

### SN chooses CAISO

This first decision affects only WAPA's SN region, which includes northern California and Nevada. WAPA customers Modesto Irrigation District and the cities of Redding and Roseville will also join the Western EIM, pending final approval by the municipal utilities' governing bodies.

"Joining the Western EIM will help SN ensure the reliable delivery of our hydropower while adjusting to a changing energy mix," said WAPA Senior Vice President and SN Regional Manager Sonja Anderson. "Given our footprint within the BANC balancing authority area, the CAISO EIM is the best fit for SN."

BANC, a joint power agency, was founded in 2011 by SMUD, Modesto Irrigation District, Roseville Electric,



**THE LATEST  
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Redding Electric Utility, Trinity Public Utility District and the City of Shasta Lake. SMUD, the nation's sixth largest municipal utility, became the first BANC member to join the CAISO EIM April 3. This was the first step in an arrangement that allows BANC members to phase into participation in the CAISO EIM, with WAPA's agreement representing Phase II.

### **CRSP MC, RM, UGP step into SPP WEIS**

WAPA, Basin Electric Power Cooperative and Tri-State Generation and Transmission Association will be among the first western utilities to participate in Southwest Power Pool's Western Energy Imbalance Service market when it launches in February 2021.

CRSP MC, RM and UGP may consider SPP regional transmission organization membership if that becomes an option in the future. Several WAPA customers have also demonstrated a commitment to moving forward with SPP. UGP, east system, has been a full member of the SPP regional transmission organization since 2015, greatly enhancing UGP's ability to market surplus hydropower.

With WAPA's Sept. 9 announcement, SPP has enough participants to begin the WEIS implementation process. The deadline for power providers to join the SPP WEIS for the February 2021 launch was Oct. 25.

### **Stay tuned**

The latest commitments are part of WAPA's continuing efforts to ensure reliability, economic performance and resilience. They reflect the desire to maximize customers' options in the rapidly changing industry.

WAPA will take into account the regional differences and continue supporting its customers in terms of the lowest possible cost consistent with sound business principles.

Customers can stay up to date with WAPA's exploration of markets by regularly visiting The Source, Key topics, Energy Imbalance Markets/Services. Regional vice presidents and power marketing managers will be happy to answer questions and take comments as well.



The fire at the Vining Substation crippled Powell's electrical grid, leaving the town entirely without power. Crews worked through the day to restore and maintain power for residents and businesses. (Photo by Toby Bonner)

## Employees respond to weekend outage

By Lisa Meiman

Photos courtesy of *Powell Tribune*

**E**arly in the morning June 29, Electrician Foreman II Paul Davis was enjoying his normal weekend routine in his home near Powell, Wyoming.

"I was having coffee and scrolling through Facebook," said Davis. "People in town were posting about a power outage. I saw fire trucks and flashing lights and sure enough there was a big fire at the substation."

Nearly everyone in Powell, a city of about 6,300 residents, was without power. A breaker had failed at Vining Substation around 5 a.m. When electricians attempted to energize the breaker, the nearby oil-filled regulators exploded, causing the oil to ignite.

Thankfully, no one was hurt.

"The substation was only a mile from my house," said Davis. "At that point, I could sit at home while the power is out, or I could go and help."

He called Dispatch for an update then traveled to the substation to offer his assistance.

Powell is a WAPA customer through the Wyoming Municipal Power Agency. WAPA also has meters at the substation.

Davis worked with crews from the City of Powell and neighboring Garland Light & Power to restore power by 11 a.m., but the situation was fragile. City Administrator Zack Thorington requested residents minimize power consumption to keep from overloading the substation.

The power held until about 4 p.m. when the load increased dramatically as people turned on air conditioners. This overloaded the circuits and cut power to the city again.

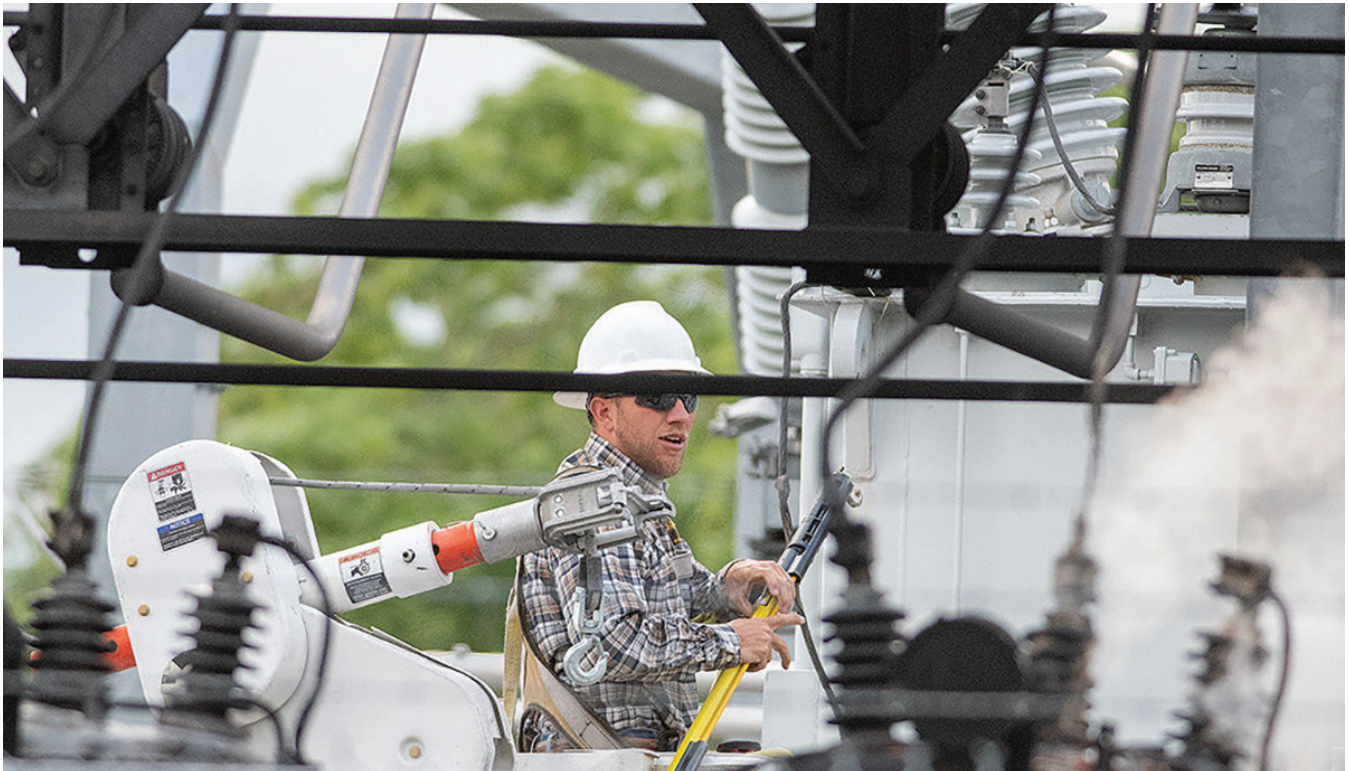
That's when Davis called for Meter and Relay Specialists Joe Haskins and Nathan Whitford from Cody, Wyoming.

"The city doesn't have the Maintenance program like we do," said Davis. "They don't have engineers or protection specialists. They have linemen and electricians. So we called Joe and Nathan to troubleshoot."

Haskins was at a barbeque when the call came.

"Our job was to help them balance load and keep the circuit breakers from tripping," said Haskins.





A worker deals with the aftermath of a morning fire at the Vining Substation, while equipment smolders in the foreground. (Photo by Don Cogger)

The city crew could not get information on how their circuits were performing, but Haskins and Whitford were able to quickly diagnose the problem.

"When we arrived, we could see on the control systems that only one of the remaining circuits was being used and overloading, which would cause the breaker to trip," Haskins explained. "We recommended swapping load from one circuit to another to keep the load balanced and keep them from tripping off."

The crew fully restored power to the city around 10 p.m., but the solution was temporary. The investigation is still underway as to why the 30-year-old breaker failed. City and utility officials suspect age played a role.

The city expressed gratitude to all who supported them in the wake of the fire and power outage, including WAPA.

"We were there to help, and I'm glad we did it," Haskins said. "We even got a high five from a councilwoman for our effort."

"It was just like any other call out," added Davis. "It's what we do. This is WAPA helping out a customer. Far more times we have had negative press about outages. This was a positive experience."

"It's rare to be called out on a weekend for meter and relay, but it happens," concluded Haskins. "It's part of the job; we're always on call."

*Note: Meiman is a public affairs specialist.*

Read Powell Tribune's coverage of this event at [bit.ly/2Z3Smav](https://bit.ly/2Z3Smav)



Members of the Powell Volunteer Fire Department hose down electrical equipment at the City of Powell's Vining Substation. (Photo by Don Cogger)





Once the new Brookings Substation is energized, a new project will demolish the old substation infrastructure.

## Substation replacement supports South Dakota

By Lisa Meiman

**A** substation replacement project years in the making is finally coming to a close in Upper Great Plains.

Brookings Substation, located in the South Dakota city of the same name, is being replaced with a state-of-the-art facility that will improve the reliability of electric service to the area.

"We're putting a lot of people's minds at ease with this project," said Electrical Engineer Lesley Berg. "The extra reliability will help as South Dakota is prone to ice in the winter and storms in the summer."

The 115-kilovolt substation carries several lines belonging to WAPA, the City of Brookings and East River Electric Power Cooperative. Originally built in the 1950s, time has worn away both equipment and the surrounding land.

"The substation is located in a swamp," said Supervisory General Engineer Randy Diede. "We have cable trays that are full of water and sump pumps in the control building. This yard has had drainage issues for quite some time. Drainage paths from the original construction have long since eroded away."

Among other improvements, the new yard will include drainage to prevent flooding. It is also more than double the size of the old yard and has extra space for East River to add a new bay as demand increases.

"The loads in southeast South Dakota have exploded," said Berg. "Up and down the Interstate 29 corridor, there is a lot of growth."

The old substation was a main and transfer scheme, in which a single breaker failure would result in multiple line outages. The new yard is a breaker-and-a-half scheme in which three breakers protect two lines.



Brookings, which depends on the substation, is the fourth largest city in South Dakota and is home to more than 22,000 people. It is also home to South Dakota State University, the state's largest university, which adds another 12,000 residents during the school year.

The university, a 3M Health Care manufacturing facility, a Bel Brands USA cheese factory and Daktronics—a company that builds scoreboards for events such as the Olympics—represent the critical loads in the area.

"We're improving reliability for a lot of people with this project," said Diede.

The growing regional needs have kept UGP busy upgrading, rebuilding and replacing substations. The region just completed rebuilding the VT Hanlon Substation for the burgeoning East River load. Next year, UGP plans to rebuild Gregory Substation.

"Lots of substations were built in the 1950s and 60s and very little has been done to them since then," said Berg.

## A saga for the ages

The story of rebuilding Brookings Substation goes back more than a decade.

"The idea for this project has been around a long time," said Berg. "We had a WAPA couple here, and the wife said her husband, Bill Folk, couldn't retire because Brookings Substation hadn't been rebuilt yet. He retired 15 years ago!"

Berg is also part of a WAPA couple. Her husband purchases transformers and conducts facility ratings in UGP.

When the project began in 2015, the original objective was to rebuild and expand Brookings Substation in the existing location.

"After joining the Southwest Power Pool we had significantly more interconnection requests," said Diede. "As more of these requests went into the planning queue, studies identified several instances where we would not be able to maintain reliable service to our customers during the required construction outages. Because of these constructability issues, we had to scrap the idea of modifying the existing substation and start over designing a new substation directly adjacent to the existing yard."

The project plan was 90% complete when that decision was made in January 2017. The new plan was completed in March 2018.

"This project has been a coordinated effort between Design, Maintenance, Operations, Planning, the City of Brookings and East River," said Berg. "A lot of people needed to be on board to come up with a plan that makes everyone feel warm and fuzzy."

With plans in hand, UGP was ready to tackle the project. Then Mother Nature got involved.

"By May, Southeast South Dakota had 200% of average precipitation for that time of year," said Berg. "Construction was at least six months behind."

The substation was supposed to be ready for testing and commissioning by WAPA electricians in May; instead, construction resumed in May when the site finally dried.

## Criticality creates complications

"It's a big job to get the outages to complete the substation work," said Berg. "The planning group didn't want to take lines out for long in the Brookings Substation during construction and commissioning. To keep the substation energized, we had to bring the lines up and over the old yard."

Line crews installed temporary structures between the two yards while permanent approach structures were built outside the new yard, allowing for the substation to remain energized for nearly all of construction.

The project team is optimistic the substation construction will conclude in the fall, including moving the communications tower, capacitor banks and a station service transformer from the old yard into the new one.

"We still have to coordinate crew availability to do the commissioning work," said Berg. "Electricians were slated to complete the work in May, not the fall, which squeezes their schedules. But it's not that big of a problem. This project has waited 15 years; it can wait a few more months."

Once the new substation is energized, there will be a new project to demolish the old substation infrastructure. The only equipment that will remain in the old yard will be takeoff structures, the control building slab and a station service transformer maintained by the local rural electric cooperative.

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*Note: Meiman is a public affairs specialist.*



WAPA representatives were among the 28 people who participated in a river trip through the Grand Canyon hosted by the U.S. Geological Survey's Grand Canyon Monitoring and Research Center.

## WAPA participates in nine-day Grand Canyon trip

By Teresa Waugh

**I**n late July, Administrator and CEO Mark A. Gabriel, Senior Vice President and General Counsel John Bremer, Chief Public Affairs Officer Teresa Waugh and Natural Resources Policy Analyst Steve Blazek joined 24 members of the Glen Canyon Dam Adaptive Management Work Group on a once-in-a-lifetime educational river trip through the Grand Canyon.

The 2019 Tribal-Stakeholder River Trip hosted by the United States Geological Survey's Grand Canyon Monitoring and Research Center was designed to teach participants about the history, culture and varying and often conflicting values and goals of stakeholders and tribes regarding the Grand Canyon and Glen Canyon Dam. For WAPA's participants, the goal was also a core value: Seek. Share. Partner.

The group of 28 embarked on two motorized rafts 15 miles below Glen Canyon Dam at Lee's Ferry, Arizona. Over a span of nine days and eight nights the group tackled legendary rapids, hiked steep terrain and slept on sandy river banks. It was just enough time to dig a little into the canyon's vast history and culture.

Most days began with a tribal offering to the river. A hum of deep chants by Pueblo of the Zuni Councilman Arden Kucate danced over the water and echoed against the rocks. He prayed and wished each participant well. Throughout the day the group stopped at sacred sites for the tribes to make offerings. The elements seemed to answer with thunder and rain, a brief reprieve from the dangerous heat.

Each day, the group discussed critical issues and topics of interest. It was inevitable that participants would discover more than the values and goals of stakeholders and tribes.

Deeply serious and committed, the enthusiasm of the tribal participants set the early tone, each with different views, traditions and beliefs. Ancestors of the Hopi Tribe, Southern Paiute Consortium, Hualapai, Navajo Nation and Zuni Pueblo all managed natural resources with traditional knowledge that closely matches current ecological science.





Participants get ready to embark on a day of learning about a complex ecosystem under many-sometimes conflicting-demands.

"What most people need to understand is how much we still do not understand about this place," said Grand Canyon Wildlands Senior Ecologist Larry Stevens.

In remarkable detail, Stevens shared scientific names of fish, plants and birds. More importantly, he tied together the significance, relevance and interplay of the hydrology, geology, flora and fauna in the river and canyon.

Bugs were a big topic as well. Grand Canyon Monitoring and Research Center Research Ecologist Ted Kennedy visited the first landing site on day one. He described the importance of testing bug flows. Changing the flow of water from Glen Canyon is thought to help boost the number of aquatic insects that fish eat. Further, providing steady flows of water on weekends makes it easier for bugs to survive.

Everything in the canyon has an impact on something else. For example, changing the volume of water that flows through the dam impacts the amount of water available to run through the turbines to make electricity. Too little flow at the wrong time can result in WAPA not being able to meet electrical load, which creates a need to increase generation at other facilities, likely burning fossil fuels. It is a careful balance.

"WAPA is committed to being as flexible as possible while looking at all alternatives," said Gabriel. "An important piece of our core values is to respect the environment, and we do everything we can to strike a fair balance."

Members of the tribes shared their own cultural insights, emphasizing the importance of giving back to nature continuously, daily, everywhere.

Each evening, the group gathered around an outdoor torch, and National Park Service Senior Advisor Jan Balsom led a discussion. It became easier as days passed for the group to feel the heart of the river, the "umbilical cord of the Earth," as Charlie Bullets with the Southern Piute described it. After all, every natural environment has existed in this canyon at one point in time.

For that reason, the goals of the Adaptive Management Work Group include the effort to "preserve, protect, manage and treat cultural resources for the inspiration and benefit of past, present and future generations."

The Adaptive Management Work Group is a federal advisory committee with members appointed by the Secretary of the Interior for operations of Glen Canyon Dam, the second highest concrete-arch dam in the United States, making it a "bank account of water" to draw upon in times of drought. It also stores potential electricity generation.

There is common ground in finding balance: balance between laws and regulations; balance between science and traditional ecological knowledge; balance between recreation, recovering habitat and the need to provide reliable and affordable electricity to the millions of Americans that the river serves.

Common ground begins building mutually beneficial partnerships, a critical pathway of WAPA's *Strategic Roadmap 2024*. Building those partnerships involves one of WAPA's core values: "Listen to understand. Speak with purpose."

*Note: Waugh is WAPA's chief public affairs officer.*

For more information on the Adaptive Management Work Group, visit [bit.ly/2kumFsG](https://bit.ly/2kumFsG)





Using helicopters for crew support is well-suited to jobs that require a lot of climbing, or are in locations that would be difficult to park and set up a truck.

## Taking to skies saves maintenance dollars

**W**APA's *Strategic Roadmap 2024* identifies Business, Technology and Organizational Excellence as a critical pathway to optimizing operational effectiveness. Using WAPA's aviation program to save thousands of dollars on transmission system inspections, maintenance and repairs while increasing safety for crews is excellence and effectiveness in action.

Two recent projects—one using a helicopter and one using an unmanned aerial system, or UAS—demonstrate the advantages and value of this alternative to ground transportation.

### HEC offers efficiency, safety

Rocky Mountain Maintenance crews needed to replace 90 miles of stock bridge dampers with spiral vibration damp-

ers in the rugged, desolate terrain near Dinosaur National Monument in northwestern Colorado. The wind moving on overhead power lines causes vibrations that destroy attachment hardware. The new spiral dampers dissipate the induced vibrations. To make the replacements, the crews could choose to climb the structures, drive bucket trucks with lifts or lower a line worker from a helicopter (referred to as human external cargo, or HEC) to the power line attachment points.

From a simple cost standpoint, the estimated project costs made HEC the clear choice:

- Climbing structures - \$1,015,731
- Bucket trucks/lifts - \$1,010,800
- HEC/helicopter - \$369,610

In addition to the avoided costs of about \$640,000, the job was completed ahead of schedule. There were other advantages as well—the HEC approach reduces workers' exposure to live transmission equipment and requires minimal interference with right of way.





**Highly visible hardhats are tools for communication between line workers and helicopter pilots.**

## Learning to fly

WAPA's helicopter pilots must train for several months to qualify to fly HEC operations, while maintenance crews require one to two days of training in the close cooperation aerial jobs require.

All the communication is nonverbal, noted Aviation Manager Richard Westra, since the line worker is suspended in midair far below the helicopter. "We communicate by helmet," he said, displaying the broad-brimmed hardhat line workers wear during HEC jobs. "They move their heads left to right to tell the pilot to lower them, and nodding up and down means 'raise.' No movement means hold steady."

Line workers who haven't worked on a HEC project for more than 90 days must take a refresher course before flying. "Once they are on the structure, though, they are just doing what they normally do," said Westra.

## A new way to inspect

Tower inspections are other maintenance tasks in which aerial technology can save time, money and even lives. Using a UAS, Rocky Mountain Maintenance crews took less than 13 hours to inspect 25 towers between Craig, Colorado, and Vernal, Utah, compared to the 25 hours line workers would have spent climbing each structure and performing the inspections.

"A UAS can complete a tower inspection in literally half the time it takes a line observer to do it," said Westra. "It eliminates

the need for a worker to climb the structure, which is physically demanding. It always increases safety when a worker can stay on the ground."

The estimated cost to manually climb 25 structures was approximately \$11,250, while the UAS inspections, including operational cost, was approximately \$2,188. That represented more than \$9,000 in avoided costs to do the same job, minus the physical risk to the crew.

## Right vehicle for job

Unmanned aerial systems are still new tools for transmission maintenance and are used for visual inspections only. WAPA is currently working with the Federal Aviation Administration to develop best working practices for UAS.

Although the use of HEC has grown in the last few years, utilities have used helicopters since the 1960s for crew support, including landing workers on structures. HEC can accelerate the job schedule for projects that require lots of climbing, such as insulator replacement, hot-end hardware replacement, mid-span repairs and tower modifications. The approach is also well suited to jobs in remote locations that require hours of driving to reach, in rough terrain where it would be difficult and dangerous to park and set up a truck and in rights of way where an extensive repair could tie up traffic.

Bucket trucks, however, are still the vehicle WAPA dispatches for most maintenance work. "There are a lot of places where it still makes sense to use the trucks," Westra acknowledged. "Safety always comes first at WAPA."



**WAPA uses unmanned aerial systems only for structure inspection, but even in that limited function, the technology increases worker safety while saving maintenance dollars.**





Social media has caused a spike in visitors to Glen Canyon, and too many of them are unprepared for the hazards they find. (Photo by Craig Ellsworth)

## Misadventures become river-safety reminder

By Philip Reed

**I**t is unlikely that WAPA employees go to work in the morning expecting to rescue others, but some days that is exactly what happens.

Staff members of the Colorado River Storage Project Management Center have come to the assistance of ill-prepared boaters on the Colorado River on a number of occasions this summer. The area has seen a massive spike in tourism—amounting to around 2 million visitors per

year—which has led to there being many people on the river who do not understand the hazards and risks.

Early in the summer, CRSP MC employees helped kayakers to safety after a storm and rescued a man suffering from heat exhaustion. In August, Fishery Biologist Craig Ellsworth witnessed yet another river-safety incident during a research trip in Glen Canyon. While boating back from the dam after dark, he encountered two paddleboarders.

“They miscalculated the amount of time it would take to get back to the boat launch,” said Ellsworth. “They were paddling down the river in the dark with flashlights, but no life jackets.”

The visitors had entered what Ellsworth describes as a slough—a dead-end backwater—along the side of the river.





**Boating and rafting offer their own sets of dangers to tourists, particularly those who haven't researched their trips in advance.**

"They were confused about how to get out of the slough and back into the river," he said, "and they were about to go through a slot in a cobble bar that was running pretty fast. In daylight it would have been easy to do, but at night with only a flashlight it would have been confusing and very dangerous."

Ellsworth knew that it was important to intervene, as the visitors almost certainly did not know how much danger they were facing.

"If they had tipped over and become separated from their paddleboards, things could have ended up pretty badly, pretty quickly," said Ellsworth. "We pulled up and asked if they needed help, which they initially declined."

That's when Ellsworth noticed the visitors were not wearing life jackets.

"When our boat driver saw they didn't have life jackets on, he kind of flipped out on them," Ellsworth said. "He said he was going to follow them down to our camp and put them on a boat and have someone drive them out."

Sure enough, that's exactly what ended up happening. The unprepared visitors were not left to fend for themselves, instead receiving a lift to where they needed to go.

It is fortunate that Ellsworth happened to be in the area at that precise time. Like many other visitors to the park, the paddleboarders assumed they had things under control. Being demonstrably unprepared, though, it likely worked to everyone's benefit that Ellsworth found them when he did.

It could have been a very different story if he had not.

*Note: Reed is a technical writer who works under the Wyandotte Technology contract.*

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FALL 2019

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